



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
[www.uspto.gov](http://www.uspto.gov)

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/054,042	01/22/2002	Steven R. Kunkel	ROC920010209US1	1375
7590	07/14/2005		EXAMINER	
Gero G. McClellan Moser, Patterson & Sheridan, L.L.P. Suite 1500 3040 Post Oak Boulevard Houston, TX 77056-6582			NAMAZI, MEHDI	
			ART UNIT	PAPER NUMBER
			2189	
DATE MAILED: 07/14/2005				

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/054,042	KUNKEL ET AL.	
	<b>Examiner</b>	<b>Art Unit</b>	
	Mehdi Namazi	2189	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) Responsive to communication(s) filed on 25 April 2005.  
 2a) This action is FINAL.                    2b) This action is non-final.  
 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) Claim(s) 1-6, 12-17, 19-24 and 29-38 is/are pending in the application.  
 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
 5) Claim(s) 30-33 is/are allowed.  
 6) Claim(s) 1-6, 12-17, 19-24 and 29-38 is/are rejected.  
 7) Claim(s) \_\_\_\_\_ is/are objected to.  
 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) The specification is objected to by the Examiner.  
 10) The drawing(s) filed on \_\_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.  
     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
 a) All    b) Some \* c) None of:  
 1. Certified copies of the priority documents have been received.  
 2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                    | Paper No(s)/Mail Date: _____  |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date: _____ | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
|   | 6) <input type="checkbox"/> Other: _____                                    |

## DETAILED ACTION

1. This office action is in response to amendment filed April 25, 2005.

### *Claim Objections*

2. Claims objected to because of the following informalities:

Claim 15, line 2, "five field fields" should be replace with --five fields--.

Claim 16, line 2, "five field fields" should be replace with --five fields--.

Claim 34, line 8, "five field fields" should be replace with --five fields--.

Appropriate correction is required.

### *Claim Rejections - 35 USC § 101*

3. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claims 19, 35, and 36 are rejected under 35 U.S.C. 101 because the claims invention is directed to non-statutory subject matter. At line 1, the claims recites "a signal bearing medium". However, Applicant, on page 6, lines 4-9, of the specification, discloses "signal bearing medium is to convey information to a computer via a communication medium, such as a telephone network, including wireless communications". It is worth mentioning that signal bearing medium such as wireless is non-tangible objects and hence is non-statutory subject matter.

### *Claim Rejections - 35 USC § 102*

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

Claims 1-6, 12-17, 19-24, 29, 34, and 35 are rejected under 35 U.S.C. 102(e) as being anticipated by Harper (US. Patent 6,675,316).

As per claims 1, 12, and 19, Harper teaches executing (col. 11, line 9), by a processor, a cache purge instruction that configures the processor to purge a cache line from the processor and send the cache line to at least one of a plurality of processors in the shared memory multiple processor computer system to update the at least one of a plurality of processors (col. 4, lines 18-30, writing modified (updated data) I2 and I3 cache lines from that node to one of the plurality of CPU/cache node or memory node).

As per claims 2, 13, and 20, Harper teaches the step of executing, by a processor, a cache purge instruction is performed after modifying the cache line by the processor (col. 4, lines 16-17, modified data are going to be flushed).

As per claims 3, 14, and 21, Harper teaches wherein the cache line has a unique address (it is inherent in any cache system to have an address for each line).

As per claims 4, and 22, Harper teaches wherein the cache purge instruction updates all processors in the computer system (by flushing modified data to other caches they be updated).

As per claims 5, and 23, Harper teaches the cache purge instruction updates only an oldest cache line (by modifying the cache line, oldest cache line has been updated).

As per claims 6, and 24, Harper teaches wherein the cache purge instruction updates at least one level of cache (col. 4, lines 20-22).

As per claims 15-17, Harper teaches one of the at least five fields indicates which level of cache will be updated by the cache purge instruction (col. 3-4, line 61-17).

As per claims 29, and 35, Harper teaches a method of managing cache in a shared memory multiple processor computer system, comprising:

Executing, by a processor(col. 11, line 9), a cache purge instruction that configures the processor to purge a cache line from the processor and send the cache line to at least one of a plurality of processors in the shared memory multiple processors (col. 4, lines 18-30, writing modified (updated data) I2 and I3 cache lines from that node to one of the plurality of CPU/cache node or memory node), wherein the cache purge instruction updates all caches in the computer system and marks a state of all updated cache line as shared (col. 4, lines 11-13, also a "shared" cache line is valid within the cache, and may exist within the caches of other processors).

As per claim 34, Harper teaches a computer system, comprsing a shared memory (fig. 4)and at least two processors wherein each processor is associated with

at least one level of cache (fig. 4) and wherein each processor, when executing a cache purge instruction is configured to purge a cache line from the processor executing the cache purge instruction and send the cache line to at least one other processor in the computer system to update the at least one other processing the computer system to update the at least one other processor (col. 4, lines 18-30, writing modified (updated data) I2 and I3 cache lines from that node to one of the plurality of CPU/cache node or memory node), the cache purge instruction is referenced to at least five fields and one of the at least five field indicates how the state of the updated cache(s) will be marked (cols. 3-4, lines 61-17).

***Allowable Subject Matter***

5. Claims 30, and 31-33 are allowed.
6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mehdi Namazi whose telephone number is 571-272-4209. The examiner can normally be reached on Monday-Friday 8:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mano Padmanabhan can be reached on 571-272-4210. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Mehdi Namazi  
July 11, 2005

Mano Padmanabhan  
7/11/05

MANO PADMANABHAN  
SUPERVISORY PATENT EXAMINER